

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty BJS-159-86
Dkt.

NARIMATSU et al

TC/A.U. 1652

Serial No. 10/524,505

Examiner: Prouty

Filed: February 14, 2005

Date: May 29, 2007

Title: NOVEL N-ACETYL GALACTOSAMINE TRANSFERASES AND NUCLEIC ACIDS
ENCODING THE SAME



Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☐ **Correspondence Address Indication Form Attached.**

Fees are attached as calculated below:

| | | | |
|--|----|----------------------|--|
| Total effective claims after amendment | 0 | minus highest number | |
| previously paid for | 20 | (at least 20) = | 0 x \$50.00 \$0.00 (1202)/\$0.00 (2202) \$ |

| | | | |
|------------------------------------|---|----------------------|---|
| Independent claims after amendment | 0 | minus highest number | |
| previously paid for | 3 | (at least 3) = | 0 x \$200.00 \$0.00 (1201)/\$0.00 (2201) \$ |

If proper multiple dependent claims now added for first time, (ignore improper); add
\$360.00 (1203)/\$180.00 (2203) \$

Petition is hereby made to extend the current due date so as to cover the filing date of this
paper and attachment(s)

| | |
|------------------------|---|
| One Month Extension | \$120.00 (1251)/\$60.00 (2251) |
| Two Month Extensions | \$450.00 (1252)/\$225.00 (2252) |
| Three Month Extensions | \$1020.00 (1253)/\$510.00 (2253) |
| Four Month Extensions | \$1590.00 (1254)/\$795.00 (2254) |
| Five Month Extensions | \$2160.00 (1255)/\$1080.00 (2255) \$ 120.00 |

Terminal disclaimer enclosed, add \$130.00 (1814)/\$65.00 (2814) \$

☐ Applicant claims "small entity" status. ☐ Statement filed herewith

| | | | |
|---|-----------------|----|------|
| Rule 56 Information Disclosure Statement Filing Fee | \$180.00 (1806) | \$ | 0.00 |
|---|-----------------|----|------|

| | | | |
|--------------------------|----------------|----|------|
| Assignment Recording Fee | \$40.00 (8021) | \$ | 0.00 |
|--------------------------|----------------|----|------|

| | | | |
|--------|--|----|------|
| Other: | | \$ | 0.00 |
|--------|--|----|------|

TOTAL FEE \$ 120.00

☒ **CREDIT CARD PAYMENT FORM ATTACHED.**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.
By Atty: B. J. Sadoff, Reg. No. 36,663

Signature: /B. J. Sadoff/

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NARIMATSU et al

Atty. Ref.: 159-86; Confirmation No. 3424

Appl. No. 10/524,505

TC/A.U. 1652

Filed: February 14, 2005

Examiner: Prouty

For: NOVEL N-ACETYL GALACTOSAMINE TRANSFERASES AND NUCLEIC ACIDS
ENCODING THE SAME

* * * * *

Tuesday, May 29, 2007

[Monday, May 28th being a Federal
Holiday]

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE

Responsive to the Official Action dated March 28, 2007, the applicants elect, with traverse, the subject matter of the Examiner's Group II and the Examiner's Group (B) (protein of SEQ ID NO:3 or a nucleic acid encoding SEQ ID NO:3).

The applicants further elect, with traverse, the species of SEQ ID NO:23, for the purpose of initial search.

Reconsideration and withdrawal of the restriction requirement and lack of unity of invention assertion are requested in view of the following comments.

The present application is a 371 U.S. national phase of a PCT application, such that the principles of unity of invention should apply.

The applicants believe that the subject matter of the Examiner's Groups I to V and Groups (A) to (D) relate to a single general inventive concept and have the same and corresponding special technical feature. Consideration of the following in this regard is requested.

The Examiner is understood to believe that Kewar et al (JBC, vol 277, No. 41, pp. 38189-38196 (October 11, 2002)) teach proteins with N-acetylgalactosamine transferase activity and that the present claims therefore allegedly lack unity of invention because they do not share any technical feature.

The applicants submit however that the N-acetyl galactosamine transferase gene is derived from *C. elegans* whereas the presently claimed invention relates to N-acetylgalactosamine transferase genes derived from humans. The size and amino acid/nucleotide sequence of the N-acetylgalactosamine transferase derived from *C. elegans* is understood to be different from those derived from human. For example, the amino acid sequence of the enzyme of the cited art has 383 amino acid residues whereas the enzymes of the present application have 1039 amino acid residues (SEQ ID NO:1) and 998 amino acid residues (SEQ ID NO:3).

Compared with the protein in Kewar et al, the structure of the claimed protein differs from the protein of Kewar et al. The applicants submit that the size and amino acid/nucleotide sequence of the present invention are different from the protein of Kewar et al. The applicants further submit, for example, that the elected SEQ ID NO:3 has cluster(s) of an acidic amino acid(s) and a proline-rich region, which are not believed to be present in the amino acid sequence of Kewar et al.

With respect to the activity of the N-acetylgalactosamine transferase, the detailed substrate specificity of the enzyme derived from *C. elegans* is believed to be different from that of the enzyme derived from humans. The data described in the cited art is understood to be different from the results of the present specification.

Moreover, with respect to the primers, the primers of the cited art are understood to relate to the gene of the N-acetylgalactosamine transferase derived from *C. elegans* and are believed to be different from the primers described in the present specification.

Withdrawal of the election requirements and examination of all of the claimed subject matter are requested.

An early and favorable Action on the merits of the claimed invention

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /B. J. Sadoff/
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